



ANNUAL REPORT

OFFICE OF RESEARCH & GRADUATE STUDIES

2012-2013

Results

Research

Total Research Funding Awarded in 2012-2013

Type of Funding	Sources	Amount SAR
External	NPST, GDRG, Boeing	9,767,125
Internal	Alfaisal University	1,023,250

Research Output (based on Scopus data)

Year	2008	2009	2010	2011	2012	2013 (up to Oct)
Refereed Journal Papers (RJP)*	1	27	53	63	135	123
Cumulative Total RJP	1	28	81	144	279	402
Number of Citations	0	5	76	211	496	710
Number RJP/FTF**/Yr	0.1	1.0	1.2	1.0	1.5	1.6
Number citations/ FTF/Yr	0	0.2	1.4	3.4	3.7	5.8

* RJP showing Alfaisal University as affiliation

** FTF= full time faculty

Graduate Studies

Current Graduate Programs

Program	Number of Accepted students 2013	Total Current students Number	Graduated students (2012)	Graduated Students (2013)
Master's in Business Administration (MBA)	69	171	50	49
Master's in Radiology & Imaging Science (MRS)	24	24	0	0
Master's in Biomedical Science (MBS)	8	14	0	0
Master's in Genetic Counselling (MGC)	To be launched in Spring 2014			
Total	101	209	99	

Achievements by Faculty & Students



First US Patent Assigned to Alfaisal University Chemistry Professor & his Research Team in Applied Nanotechnology



Two Sponsored Research Projects Totalling Almost 2 Million SAR Awarded to Faculty Members in College of Science & General Studies and College of Engineering



Five Alfaisal University Student Projects Awarded \$50,000 USD in BOEING Students Research Grants



Alfaisal University Students Honored at Annual Student Research Recognition Day

Executive Summary

The total external research funding awarded in 2012-2013 reached SAR 9,767,125. This total includes 187,500 SAR for five student research projects funded by Boeing. This is a significant accomplishment for Alfaisal University faculty members, as well as for the Office of Research & Graduate Studies. Assuming that we have 100 full time faculty members this works out to about 96,000 SAR per faculty member per year. The external funds came primarily from the National Plan for Science & Technology (NPST) Strategic Grants program at 7,154,625 SAR; and the General Directorate for Research Grants (GDRG) program at 2,425,000 SAR. It is noteworthy that the NPST grant program is funded through a special strategic fund from the Ministry of Finance. All proposals at present must have the PI from a government institution. The GDRG grants program on the other hand is funded through the KACST budget. In this case the PI can be from a private institution, such as Alfaisal University.

Boeing has taken the initiative to annually support student research at Alfaisal University through competitive awards. Alfaisal University has the support of national and international co-founders and distinguished Board Members such as provided by Boeing that have continually supported the university in its mission to be a student-centred institution committed to research. The funding provided by Boeing aids in the building of a strong research oriented institution as envisaged by the King Faisal Foundation. The University is extremely thankful to Boeing for taking the initiative to support student research.

One of the major achievements over the past two years has been the success of Alfaisal University faculty in the Saudi Aramco University Collaboration Programs (UCP). Three out of six research proposals submitted by faculty members at Alfaisal University were accepted for funding as part of the Saudi Aramco University Collaboration Program (UCP). All three projects are on track with respect to deliverables. The cash flows have caused some concern since Aramco offers very little up front. Cash flows are tied to deliverables such as reports, journal papers, conference papers, and physical samples. However, Alfaisal University has been very generous and supportive in providing cash advances. The three projects are expected to be completed by the end of 2014.

Significant achievements have been made by Alfaisal University undergraduate students over the past year. These accomplishments include taken part in an Annual Research Day Poster Competition at Alfaisal, contributing to a similar competition organized by MOHE at the National level, winning Boeing Student Research Awards, taking part in the Shell Eco marathon competition in Qatar by building a more fuel efficient car, publishing scientific papers and book chapters with faculty members, winning international awards at student conferences and contributing their time by volunteering for community projects.

The College of Medicine received 500,000 SAR for research studies on lung cancer from the Alanoud Foundation. It is hoped that this external support can be turned into an annual award.

During 2013 five faculty members were selected to act as consultants for King Abdulaziz City for Science and Technology (KACST) projects. Some members have already started working with KACST staff on their existing projects. In addition, the Office of Research with the help of College of Engineering organized a program where students participated in a summer internship at KACST. Students were distributed among various research centres at KACST including the Space and Aeronautics Technology Centre, the Energy Centre and the Nanotechnology Centre.

A grant total of SR 1,023,250 was awarded for 25 projects for the IRG2013 competition. These are competitive grant applications which are reviewed by the College Research Committees and approved by the Research & Graduate Studies Council. Furthermore, a new internal research grant competition will be introduced in 2014: Strategic Research Grants (SRG 2014). Research priority areas for Alfaisal University were identified to provide assistance to faculty members in development of strategic research grant proposals that are relevant the needs of the country as well as Alfaisal University.

A new five year Strategic Plan (2013-2018) has been developed for the Office of Research & Graduate Studies. An Operational Plan has also been established in 2013 in order to implement the Strategic Plan.

Research output by Alfaisal Faculty has been assessed using both external and internal sources. Information obtained from Scopus database indicates that Alfaisal is doing well in terms of research output. On the other hand an internal compiling of refereed journal papers obtained directly from full-

time faculty suggests that the research output of our full-time faculty is decreasing. The difference between the two may be due primarily to a positive contribution to refereed journal papers from adjunct faculty. The progressively increasing AU research output data from Scopus is more important since AU will be compared to other universities using these results. The high quality of the research output by Alfaisal faculty members was confirmed by a *Research Performance Indicators Report 2012* commissioned from Thomson Reuters for KACST (2nd Report). The report analyses literature publication activity of 30 research institutions in Saudi Arabia during 2007-2011 and indicates that papers produced by Alfaisal University are high quality with an average citation impact of 1.03 which is higher than KSU at 0.79, KFUPM at 0.79, KFSHRC at 0.80 & KACST at 0.833.

With the help of a BOT member and KFSHRC Executive Administration, Alfaisal University is now ordering research chemicals through the KFSHRC system. Based on our initial experience it takes about 2 to 4 months to receive the research chemicals, which is significantly shorter than the previous ordering system. A continuing regional problem is the length of time taken to obtain chemicals, supplies and equipment. The bottle neck is generally recognized as being the delay at the customs level. Hospitals apparently receive special treatment from customs, with the total time taken from the time of ordering chemicals to the time of receipt being about two months. This compares very favourably to the six month period required through the regular route.

The Alfaisal University 4th Annual Research Day Student Poster competition was held on 10 April 2013. A total of 41 applications were received. There were 12 awards: 5 groups were awarded 1st prize, 4 groups were awarded 2nd prize and 3 groups were awarded 3rd prize. This year there were four specific categories: Business & Management, Engineering & Technology, Medicine & Health Sciences, and Science and Humanities. For the first time undergraduate business students took part in the competition.

ORG took the lead this year to arrange and be responsible for MOHE's 5th Student Competition. The Conference strives to improve the scientific knowledge and leadership skills for students of higher education. Furthermore, it is a great opportunity for students to present and apply the knowledge that they have gained. During this conference, students are provided with the opportunity to present their creative ideas as well as their research and graduation projects. The program will include many moderated activities such as: Presenting scientific research, studies and papers; Well-designed scientific posters; Exhibitions which accompany students' research and scientific innovations; and Competitive and well organized presentations of student made films and documentaries.

In the area of graduate studies, currently Alfaisal University has four approved and functioning graduate programs. A total of 101 new students were admitted in 2012-2013, a total of 99 have graduated and 209 students are currently enrolled. Four new graduate programs, including a doctoral program and two new tracks under an existing program are in various stages of development and/or approval.

Finally, a new committee, the *Graduate Studies Subcommittee (GSC)* was formed to manage the day-to-day management of graduate student issues including admissions. The committee which is chaired by ORG is responsible for the quality and monitoring of graduate education. The Committee membership includes a representative from Student Affairs and from each College with a graduate program. Membership is limited to administrative level.

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1. Research Funding

The total external research funding awarded in 2012-2013 reached SAR 9,767,125 (Tables 1 and 2). This total includes 187,500 SAR for five student research projects funded by Boeing. This is a significant accomplishment for Alfaisal University faculty members, as well as for the Office of Research & Graduate Studies. Assuming that we have 100 full time faculty members this works out to about 96,000 SAR per faculty member per year.

The external funds came primarily from the National Plan for Science & Technology (NPST) Strategic Grants program at 7,154,625 SAR (Table 2); and the General Directorate for Research Grants (GDRG) program at 2,425,000 SAR (Table 3). It is noteworthy that the NPST grant program is funded through a special strategic fund from the Ministry of Finance. All proposals at present must have the PI from a government institution. The GDRG grants program on the other hand is funded through the KACST budget. In this case the PI can be from a private institution, such as Alfaisal University.

Table1. Total Research Funding Awarded for 2013

Type of Funding	Sources	Amount SAR
External	NPST, GDRG, Boeing	9,767,125
Internal	Alfaisal University	1,023,250

1.1 External Research Funding

1.1.1 National Plan for Science & Technology (NPST) Strategic Grants Awarded

A total of 5 projects totalling SAR 7,154,625 were awarded to Alfaisal University faculty members through the National Plan for Science & Technology (NPST) Strategic Grants Program administered by KACST but financed through a special strategic fund from the Ministry of Finance (Table 2). Two proposals totalling SAR 3,603,050 are under review. All PIs on NPST Grants must have an affiliation with a government institution

1.1.2 General Directorate for Research Grants (GDRG) Projects Awarded

The year 2013 was the first time that faculty members received grants from the General Directorate for Research (GDRG) which directly funded from the KACST budget and thus more flexible than NPST competition. Two projects received a total awarded of 2,425,000 SAR, while three proposals totaling 4,110,000 SAR are under review (Table 3). The main advantage of the GDRG competition is that the PI can be from a private institution such as Alfaisal University.

Table 2. National Plan for Science & Technology (NPST) Strategic Grants Awarded in 2012-2013. **Total Awarded:7,154,625 SAR**

#	Project Code	Title	College/ Strat Area	PI/Institution
1	09-MED638-20	Cardiac Function Hyperhomocysteinemie	CoM/ Medical & Health	Paul Ganguly/ KFSHRC
2	11-MED1672-20	Role of T cells in LPS-induced lung inflammation and dysfunction	CoM/ Medical & Health	Ramutis Kvietys/ KFSHRC
3	09-BIO812-20	Identification of novel diagnostic & prognostic markers for bladder cancer through whole genome methylation	CoM/ Biotechnology	Ahmed Yaqinuddin/ KFSHRC
4	10-NAN1127-44	Synthesis and characterization of polymer nanocomposites via gas phase polymerization	CoE/ Nanotechnology	Edreese Alsharaeh/ King Abdulaziz Univ
5	-	Activated Carbon/Methanol Adsorption Cooling System Driven by a Novel Solar-Powered Heat Engine	CoE/ Engineering	H. Z. Hassan Zohair/ King Saud Univ

Table 3. General Directorate for Research Grants (GDRG) Projects Awarded in 2012-2013. **Total Awarded 2,425,000 SAR**

#	Title	College/Area	PI
1	Optimized Features Encoding and Classification Algorithms for Protein in Bioinformatics	CoSGS Information Technology	Dr. Belloui Bouzid-PI Dr.Brahim B. Samir-COI
2	Interference Management and Mitigation in Dense Overlaid Wireless Networks	CoE Electrical Engineering	Dr. Redah M. Radaydeh PI Mohammed Alouini COI -KAUST

1.1.3 Boeing Student Research Project Awards

Boeing has taken the initiative to annually support student research at Alfaisal University through competitive awards (Table 4). Alfaisal University was founded by the highly reputed King Faisal Foundation as one of the first private non-profit, research and teaching universities in Saudi Arabia committed to achieving international standards of excellence. It has the support of national and international co-founders and distinguished Board Members such as provided by Boeing, that have continually supported the university in its mission to be a student –centred institution committed to research. The funding provided by Boeing aids in the building of a strong research oriented institution as envisaged by the King Faisal Foundation.

The President of Boeing Saudi Arabia, Eng. Ahmed Jassar, handed over a check for \$50,000 USD to the Alfaisal University Provost, Dr Faisal Al Mubarak on Sunday 10 November 2013. Five student research projects from the College of Medicine & College of Engineering were funded by the company. The research funds are administered by the Office of Research & Graduate Studies with general oversight provided by the Research & Graduate Studies Council at Alfaisal University.

The University is extremely thankful to Boeing for taking the initiative to support student research. This is the first year that Alfaisal University has had this competition. The Institution can be very proud of the high quality of our students and the initiatives taking by them to help address areas of strategic concern faced by the country.

Table 4. Boeing Student Research Project Awards. **Grand Total 187,500 SR**

Code	Student PI	Advisor Name	College	Project Title
B2013-01-MUSTAFA	Osama Mufid Mustafa	Ahmed Yaqinuddin	COM	DNA Methylation Pattern for the Development of Diagnostic and Prognostic Markers in Breast Cancer
B2013-02-MUSTAFA	Osama Mufid Mustafa	Dileep Rohra	COM	Pattern of Self-Medication among University Students in Saudi Arabia
B2013-03-ALANAZI	Faiz Faisal Alanazi	M. Hasan Rajab	COM	Effectiveness of an Innovative Community-Based Breast Cancer Caregiver Support Program
B2013-04-SARKAR	Abdullah Sarkar	Abiola Senok	COM	DETERMINING THE DYNAMICS OF METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS COLONIZATION AMONG YOUNG ADULTS IN SAUDI ARABIA
B2013-05-ABDELATY	Mohamed Tarek Abdelaty	Ahmed Oteafy	COE	Controllable Speed Tesla Motor

1.1.4 Aramco Projects

One of the major achievements over the past two years has been the success of Alfaisal University faculty in the Saudi Aramco University Collaboration Programs (UCP). Three out of six research proposals submitted by faculty members at Alfaisal University were accepted for funding as part of the Saudi Aramco University Collaboration Program (UCP).

The three contracts from Alfaisal University that are currently running include: Dr. Muhammad Azeem Ashraf for a project in applied mathematics and computational modeling entitled “Wear behavior characterization of Stellite alloys using computational modeling”; Dr. Nadimul H. Faisal for a project in the area of oil to hydrogen and fuel cells entitled “Advance anode materials for direct hydrocarbon proton conducting solid oxide fuel cell (PC-SOFC) in auxiliary power units”; and Dr. Rehan Ahmed for research on “Nano-composite carbide coatings for wear resistant applications”, which has applications in advanced and nano-structured materials.

All three projects are on track with respect to deliverables. The three projects are expected to be completed by the end of 2014.

1.1.5 Al Anoud Foundation

The College of Medicine received 500,000 SAR for research studies on lung cancer from the Alanoud Foundation (Table 5). It is hoped that this external support can be turned into an annual award.

Table 5. Alanoud Foundation Funding

Amount of fund	500,000 SR
Project Duration	2 Years
Project Start date	1 Jan 2013
PI	Dr. Khaled Al Al Kattan

1.1.6 King Abdulaziz City for Science and Technology (KACST) Consultation & Internship

During 2013 five faculty members were selected to act as consultants for King Abdulaziz City for Science and Technology (KACST) projects. Some members have already started working with KACST staff on their existing projects. In addition, the ORG with the help of College of Engineering organized a program where students participated in a summer internship at KACST. Students were distributed among various research centres at KACST including the Space and Aeronautics Technology Centre, the Energy Centre and the Nanotechnology Centre.

1.2 Internal Research Funding

1.2.1 Internal Research Grants (IRG 2013)

A grant total of SR 1,023,250 was awarded for 25 projects for the IRG2013 competition (Table 6). These are competitive grant applications which are reviewed by the College Research Committees and approved by the Research & Graduate Studies Council.

1.2.2 Strategic Research Grants (SRG 2014)

A new internal research grant competition will be introduced in 2014: Strategic Research Grants (SRG 2014). Research priority areas for Alfaisal University were identified to provide assistance to faculty members in development of strategic research grant proposals that are relevant the needs of the country as well as Alfaisal University.

Two million SAR has been allocated annually to this new strategic competition. Each college will be awarded up to one project of a total of 500,000 SR. Winners will be announced in 2014. The main strategic areas & sub areas are listed below.

SCIENCE & TECHNOLOGY

- Water
- Energy
- Information Technology
- Environment & Natural Resources

HEALTH, BIOMEDICINE & PHARMACEUTICALS

- Diseases
- Surgery
- Gerontology
- Genetics
- Biotechnology & Biomaterials
- Comparative Effectiveness
- Translational Research

BUSINESS

- Diversification of Economic Base
- Domestic & Foreign Investment
- Economic, Social, Environmental & Cultural Impact of Globalization
- Balanced Regional Development

2. Strategic and Operational Plans for Office of Research & Graduate Studies

A new five year Strategic Plan (2013-2018) has been developed for the Office of Research & Graduate Studies (pls see ORG website <http://web.alfaisal.edu/research/>). An Operational Plan has also been established in 2013 in order to implement the Strategic Plan.

Table 6. Internal Research Grants Awarded to Alfaisal Faculty Members in 2013 (IRG2013) Grand Total SR 1,023,250

PI Name	Project Title
Moni Nader	Striatin dynamics during apoptosis : a step towards a novel biomarker
Garwin Kim Sing	The role of neutrophils in chronic hepatitis
Mohammad Hasan Rajab	Incidence rate of prostate cancer in men treated for erectile dysfunction with phosphodiesterase type 5 inhibitors
Muhammad Faisal Ikram	Expression of DNMTs and MBDs in AIC13 induced mouse model of alzheimer's disease
Nasir Afsar	To evaluate the clinical outcome in the relationship to metabolic ratio of cyclophosphamide in breast cancer patients
Fouad Jabri	Use of antibiotics and subsequent resistance at intensive care units (ICUs) in saudi arabia
Sub-Total SR 228,250	
College of Science and General Studies	
Yasser Abdullah AlTamimi	An interlanguage pramatic study of expressions of gratitude by saudi EFL learners
Alexander Kouzmenko	Nuclear receptors in metabolic disorders : collaborative project
Elias G. Saleeby	On computing integrals over stability domains of linear difference eq
Lubna Almunawar	The proactive pyramid presentation model (book)
Shahnawaz Ahmed	A new human face Biomerics based on stastical features extracted from discrete wavelet transform coefficients for authentication & identif. syst
Samir Brahim Belhaouari	Prototype of risk prediction and early detection of multi-cancer
Edreese Alsharaeh	Synthesis and Characterization of polymer nanocomposites
Ali M. Elgindi	Complex Tangents to real-submanifolds of complex space
Worku Nida	Understanding cultures of learning on saudi campuses : an ethnographic case study of alfaisal university
Hisham Abad	Feasibility of geoengineering projects in saudi arabia
Ghaleb Rabab'ah	Using Tracking Software to Explore the Cognitive Activity in EFL Writing
Muhammad Haris	The significance of context in the reconstitution of notions of moral responsibility in engineering ethics
Sub- Total SR 425,000	
College of Engineering	
Sghaier Guizani	iPatient - RFID Identification System
Ahmed M Oteafy	Parameter identification techniques for electric machines
Abd-Elhamid M. Taha	A setup for characterizing machine communications in cellular networks
Samer Mansour	Developing an air quality monitoring system using wireless sensor technology
Nidal Nasser	Development of cloud-based internet of things (CloT) framework
Redha M Radaydeh	Energy-efficient interference coordination for multi-user two-tier wireless networks
Abdallah Alrshdan	Anthropometric measurements of saudi adults and effects of age, region and gender
Hassan Zohair Ahmed	Theoretical and Experimental Design of a solar powered adsorption cooler under saudi weather conditions
Sub- Total SR 330,000	
College of Business	
Mario A. Ferrer	Medical Tourism supply chain in saudi arabia
Sub- Total SR 40,000	

3. Research Output & Related Activities

3.1 Analysis of Research Output by Alfaisal Faculty from 2008-2013

Research output by Alfaisal Faculty has been assessed using both external (i.e. Scopus database) and internal sources. To summarize, Table 7 shown below which is based on Scopus data indicates that Alfaisal is doing well in terms of research output. On the other hand an internal compiling of refereed journal papers obtained directly from full-time faculty suggests that the research output of our full-time faculty is decreasing. The difference between the two may be due primarily to a positive contribution to refereed journal papers from adjunct faculty. The progressively increasing AU research output data from Scopus shown in Table 7 is more important since AU will be compared to other universities using these results. In 2013 for example 123 ISI journal papers were produced up to end of October showing Alfaisal University as an affiliation of at least one of the authors. By October 2013 the cumulative total number of RJPs with an Alfaisal affiliation was 402. During 2013 these 402 papers were cited 710 times by other papers. The refereed journal papers are all ISI or equivalent and they all have Alfaisal University as an affiliation. To conclude the progressively increasing AU research output (i.e. RJP) from the combined full-time and adjunct faculty as shown by the Scopus results in Table 8 indicates that overall AU is doing well.

The high quality of the research output by Alfaisal faculty members is confirmed by a *Research Performance Indicators Report 2012* commissioned from Thomson Reuters for KACST (2nd Report) (Figure 1). The report analyses literature publication activity of 30 research institutions in Saudi Arabia during 2007-2011 and indicates that papers produced by Alfaisal University are high quality with an average citation impact of 1.03 which is higher than KSU at 0.79, KFUPM at 0.79, KFSHRC at 0.80 and KACST at 0.833.

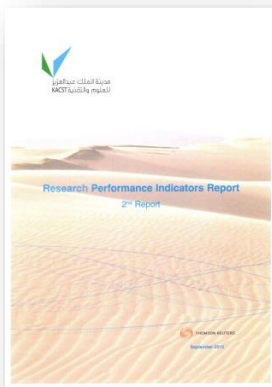
Table 7. RESEARCH OUTPUT (based on Scopus data)

Year	2008	2009	2010	2011	2012	2013 (up to Oct)
Refereed Journal Papers (RJP)*	1	27	53	63	135	123
Cumulative Total RJP	1	28	81	144	279	402
Number of Citations	0	5	76	211	496	710
Number RJP/FTF**/Yr	0.1	1.0	1.2	1.0	1.5	1.6
Number citations/ FTF/Yr	0	0.2	1.4	3.4	3.7	5.8

* RJP showing Alfaisal University as affiliation and ** FTF= full time faculty

3.2 Chemicals Purchasing through KFSHRC

A continuing regional problem is the length of time taken to obtain chemicals, supplies and equipment. The bottle neck is generally recognized as being the delay at the customs level. Hospitals apparently receive special treatment from customs, with the total time taken from the time of ordering chemicals to the time of receipt being about two months. This compares very favourably to the six month period required through the regular route. With the help of a BOT member and KFSHRC Executive Administration, Alfaisal University is now ordering research chemicals through the KFSHRC system. Based on our initial experience it takes about 2 to 4 months to receive the research chemicals, which is significantly shorter than the previous ordering system.



National research analysis of 30 Saudi research Institutions for period 2007-2011

- Overall Alfaisal University ranks:
 - 14/30 in number publications & papers
 - 4/30 in average citation impact 1.03 which is higher than KSU at 0.79, KFUPM at 0.79, KFSHRC at 0.80 and KACST at 0.833
- Normalized citation impact in the biological sciences category was 1.21 which was the second highest in the country
- In Clinical medical & health sciences papers Alfaisal ranked 7/26 in number of papers and 3/26 in average impact
- In total funding Alfaisal University ranked 10/30 with 40 million SAR during the period 2006-2012

Figure 1. Research Performance Indicators Report 2012 commissioned from Thomson Reuters for KACST (2nd Report). The report analyses literature publication activity of 30 research institutions in Saudi Arabia during 2007-2011 and indicates that Alfaisal University is doing very well with average citation impact of 1.03 which is higher than KSU at 0.79, KFUPM at 0.79, KFSHRC at 0.80 and KACST at 0.833

http://nstip.kacst.edu.sa/cs/groups/public/documents/nstip_document/~edisp/taisirp372929.pdf

3.3 Undergraduate Student Research

Significant achievements have been made by Alfaisal University undergraduate students over the past few years. These accomplishments include taken part in an Annual Research Day Poster Competition at Alfaisal, contributing to a similar competition organized by MOHE at the National level, winning Boeing Student Research Awards, taking part in the Shell Eco marathon competition in Qatar by building a more fuel efficient car, publishing scientific papers and book chapters with faculty members, winning international awards at student conferences and contributing their time by volunteering for community projects.

One of Alfaisal's priorities is competence building by, for example, helping to develop a student's intellectual abilities. Student involvement in focused research that addresses real community problems links academic programs to the actual work place through partnerships with the public/private sectors. This will help to equip students with critical thinking and problem solving skills and thus allow them to better meet the needs of the workplace and the community.

It is the responsibility of the Primary Investigator (PI) to ensure that students who participate in research are made aware of the ethical policies and procedures and that compliance must be maintained. An account of student involvement must be detailed in the research protocol to ensure that all safety measures and necessary precautions have been taken. In addition, Principal Investigators must acknowledge the contribution of students to their scholarship and research in all forms including publications and patents.

3.3.1 Annual Research Day Student Poster Competition

Alfaisal 4th poster competition was held on 10 April 2013. A total of 41 applications were received with awardees consisting of: 5 groups were awarded 1st prize winner, 4 groups were awarded 2nd prize winner and 3 groups were awarded 3rd prize winner (Table 8). This year there were four specific categories: Business & Management, Engineering & Technology, Medicine & Health Sciences, and Science and Humanities. For the first time undergraduate business students took part in the competition.

Table 8. WINNING POSTERS IN 4TH ANNUAL RESEARCH DAY STUDENT POSTER COMPETITION HELD 10 APRIL 2013 AT ALFAISAL UNIVERSITY

Business & Management		
Prize	Poster Number	Poster Title and Authors
1 st	B2-AIKraidees	Entrepreneurship Education in Saudi Arabia <i>Sara Zaki Alshowaier, Norah Abdulmajed Alkraidees</i>
2 nd	B3-AI-Saud	Basic Management Practices in the Saudi Building Industry: Exploratory Pilot Study <i>Saud Mohammed Al-Saud</i>
3 rd	B1-AI-Saud	Business Incubators and Entrepreneurship Skills at Alfaisal University <i>Nouf Bandar Al Saud, Duna Turki AlSaud, Abeer Khalid AlSaud,</i>
Engineering & Technology		
Prize	Poster Number	Poster Title and Authors
1 st	E1-Rizvi	Safety Assessment of Alfaisal University <i>Naqi H. Rizvi</i>
2 nd	E4-Mahmoud	Tesla's Founding Coil <i>Abdulrahman A. Altabba, Mohamed T. Abdelaty, Naqi H. Rizvi, Reem A. Mahmoud</i>
Science & Humanities		
Prize	Poster Number	Poster Title and Authors
1 st	S1- Bajaman	Bio-Specimen Ownership: Human Body as Property <i>Juhaina Bajaman</i>
2 nd	S2-Bandar	Synthesis, Characterization , & Antibacterial Activity of Graphene-Containing Silver Nanoparticles using Microwave Irradiation <i>Khalid B. Alsaud, Mohammed Al-Hindawi, Ali Othman, Edreese Alsharaeh</i>
Medicine & Health Science		
Prize	Poster Number	Poster Title and Authors
1 st	M27-Sabbagh	CC2D1A, The Signalling Pathway Match Maker and its Role in Autism <i>Chiara M. Manzini, Dimitri Tambunan, Renad Shaheen, Mohamed D. Sabbagh, Fowzan S. Alkuraya, , Christopher D. Walsh</i>
1 st	M26-Alhallaf	Breast Cancer Risk Reduction Associated with Breast Feeding <i>Cynthia Mosher, Rama Alhallaf, Ranim Chamseddin, Tehreem Khan</i>
2 nd	M25- Sarkar	Silencing the HSP27 Gene Suppresses growth and Migration Capabilities of PANC-1 Cells <i>Abdullah Sarkar, A. Alam, Haneen Baitalmal, M. Osama, M. Kodaymi, N.G. Mallappa, A. Asea</i>
3 rd	M14-Sebai	Autozygome-Guided Exome Sequencing Reveals Pathogenic Mutations and Novel Candidate Disease Genes in Retinal Dystrophy Patients <i>Leen Abu-Safieh, May Alrashed, Shamsa Anazi, Hisham Alkuraya, Arif O Khan, Mohammed Al-Owain, Jawahir Zahrani, Lama Al-Abdi, Mais Hashem, Salwa Ahmed, Mohammed-Adeeb Eassam Sebai, Ahmed Shamia, Mohammed Danny Ray-Zack, Malik Nassan, Zuhair Hassnan, Zuhair Rahbeeni, Saad Waheeb, Abdullah Khrashi, Emad Abboud, Selwa A F Al-Hazaa, Fowzan S Alkuraya</i>
3 nd	M9-Marashli	The Role of CaMKII as a Chromatin Remodeler in Cardiac Hypertrophy <i>Qussay Marashly, Salma Awad Mahmoud, Coralie Poizat</i>

3.3.2 MoHE 5th Students Academic Conference 2014

ORG took the lead this year to arrange and be responsible for MOHE 5th competition. Deadline for submitting requests to the ministry will be on 15 February 2014. The Conference strives to improve the scientific knowledge and leadership skills for students of higher education. Furthermore, it is a great opportunity for students to present and apply the knowledge that they have gained. During this conference, students are provided with the opportunity to present their creative ideas as well as their research and graduation projects. The program will include many moderated activities such as:

- Presenting scientific research, studies and papers.
- Well-designed scientific posters.
- Exhibitions which accompany students' research and scientific innovations.
- Competitive and well organized presentations of student made films and documentaries.

4. Graduate Studies

4.1 Graduate Programs

Currently Alfaisal University has four approved and functioning graduate programs (Table 9). A total of 101 new students were admitted in 2012-2013, 99 have graduated and 209 students are currently enrolled. Four new graduate programs, including a doctoral program and two new tracks under an existing program are in various stages of development and/or approval (Table 10) (Figure 2).

Table 9. Current Graduate Programs

Program	Number of Accepted students 2013	Total Current students Number	Graduated students (2012)	Graduated Students (2013)
Master`s in Business Administration (MBA)	69	171	50	49
Master`s in Radiology & Imaging Science (MRS)	24	24	0	0
Master`s in Biomedical Science (MBS)	8	14	0	0
Master`s in Genetic Counselling (MGC)	To be launched in Spring 2014			
Total	101	209	99	

Table 10. Programs in various stages of approval

- Master`s in Engineering System Management (with KFUPM)
- Master`s in Applied Nanotechnology (In preparation)
- Master`s in Public Health (AU internal approval)
- Doctoral Program in Biomedical Science (Needs MOHE approval to start)
- New Tracks Under MBS
 - i. Clinical Embryology & Repr Biology
 - ii. Infection Control

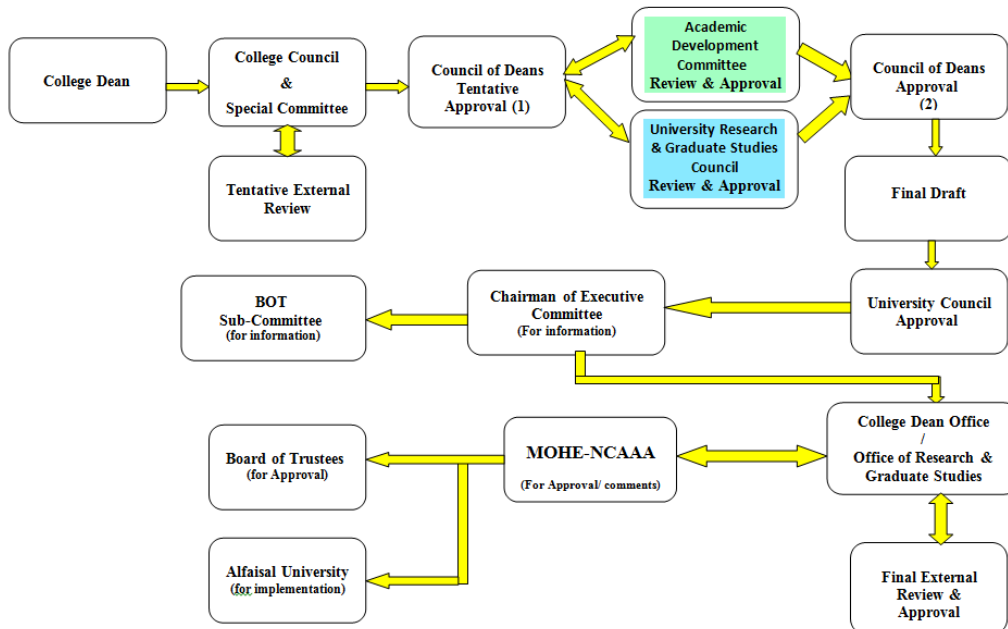


Figure 2. Academic Program Approval Process at Alfaisal University. This flow chart incorporates both new graduate as well as undergraduate programs.

4.2 Graduate Studies Subcommittee

A new committee, the *Graduate Studies Subcommittee* (GSC) was formed to manage the day-to-day management of graduate student issues including admissions. The committee which is chaired by ORG is responsible for the quality and monitoring of graduate education. The Committee membership includes a representative from Student Affairs and from each College with a graduate program. Membership is limited to administrative level. The duties and functions of this Graduate Studies Subcommittee consist of the following:

- Review all applicants received and ensure that applicants meet MOHE and college standards.
- Monitor registered graduate students to ensure they maintain their GPA based on MOHE regulations.
- Review and make recommendations on specific student cases to the Graduate Council members
- The Sub-committee reports to the RGC
- Any other duties as assigned to it by the RGC